

Listing of Claims

1. (Previously Presented) A method for compressing data, comprising the steps of:
 - analyzing a data block of an input data stream to identify one or more data types of the data block, the input data stream comprising a plurality of disparate data types;
 - performing content dependent data compression, if a data type of the data block is identified;
 - performing data compression with a single data compression encoder, if a data type of the data block is not identified.
2. ~ 22. (Canceled)
23. (Previously Presented) The method of claim 1, further comprising outputting a compressed data block.
24. (Previously Presented) The method of claim 1, further comprising appending a data compression type descriptor to a compressed data block.
25. (Previously Presented) The method of claim 24, further comprising outputting the compressed data block with the appended data compression type descriptor.
26. ~ 29. (Canceled)
30. (Previously Presented) A method for compressing data, comprising the steps of:
 - analyzing a data block of an input data stream to identify a data type of the data block, the input data stream comprising a plurality of disparate data types,
 - if the data type of the data block is identified, then the method further comprising:
 - performing content dependent data compression to compress the data block;
 - comparing a content dependent data compression ratio of the compressed data

block against a first threshold;

appending a data compression type descriptor to the compressed data block;

outputting the compressed data block and appended data compression type descriptor, if the content data compression ratio is above the first threshold; and

performing data compression on the data block with a single data compression encoder, if the content dependent data compression ratio is not above the first threshold.

31. (Currently Amended) The method of claim 30, wherein if the data type of the data block is not identified, then the method further comprising:

performing data compression with a single default data compression encoder to compress the data block;

comparing a default data compression ratio of the compressed data block against a second threshold;

if the default data compression ratio is below the second threshold, then appending a null data compression type descriptor to the data block and outputting the data block and appended null data compression type descriptor; and

if the default data compression ratio is above the second threshold, then appending a default data compression type descriptor to the compressed data block and outputting the compressed data block and appended default data compression type descriptor.

32. (New) The method of claim 1, wherein said performing content dependent data compression further comprises enabling at least one encoder associated to said data type to compress said data block.

33. (New) The method of claim 1, wherein said performing content dependent data compression further comprises:

associating a plurality of encoders to said data type;

determining which one of said plurality of encoders associated to said identified data type is to at least output a compressed data block.

34. (New) The method of claim 1, wherein said performing content dependent data compression further comprises:

- compressing said data block with a plurality of encoders that are associated to said data type;
- determining which one of said plurality of encoders yields the highest compression ratio.

35. (New) The method of claim 1, wherein said performing content dependent data compression further comprises compressing said data block with a cascaded array of encoders that are associated to said data type.

36. (New) The method of claim 1, wherein said content dependent compression is lossless.

37. (New) The method of claim 1, wherein said content dependent compression is lossy.

38. (New) The method of claim 1, wherein said data compression is lossless.

39. (New) The method of claim 1, wherein said content dependent compression is lossy and said data compression is lossless.

40. (New) The method of claim 1, wherein said content dependent data compression further comprises associating a plurality of encoders to said data type, wherein at least one of said plurality of encoders provides lossy compression and at least another one of said encoders provides lossless compression.

41. (New) The method of claim 1, wherein said content dependent data compression is lossy or lossless dependent on said data type.

42. (New) The method of claim 1, wherein said content dependent data compression is lossy and the amount of desired resolution of said lossy compression is selected.

43. (New) The method of claim 1, wherein said input stream is a compressed input stream.

44. (New) The method of claim 1, wherein said input stream is an uncompressed input stream.

45. (New) The method of claim 1, further comprising processing said data block as having a fixed size.

46. (New) The method of claim 1, further comprising processing said data block as having a variable size.

47. (New) The method of claim 1, further comprising counting the size of said data block.

48. (New) The method of claim 1, further comprising buffering said input data stream.

49. (New) The method of claim 1, further comprising buffering a compressed data block.

50. (New) The method of claim 1, further comprising:
compressing said data block; and
appending a compression type to said compressed data block representative of the type of compression used to provide said compressed data block.

51. (New) The method of claim 1, wherein said content dependent data compression further comprises providing a compressed data block from the one of a plurality of encoders, associated to said data type, that has the highest compression ratio for said data block.

52. (New) The method of claim 1, wherein said content dependent data compression further comprises providing a compressed data block from the one of a plurality of encoders, associated to said data type, that has the highest compression ratio for said data block, wherein said compression ratio is determined by comparing the size of said data block to the size of said compressed data block.

53. (New) The method of claim 1, wherein said content dependent data compression further comprises providing a compressed data block from the one of a plurality of encoders, associated to said data type, that has the highest compression ratio for said data block so long as said highest compression ratio exceeds a compression threshold.

54. (New) The method of claim 1, wherein said data compression further comprises providing a compressed data block from said single compression encoder so long as the compression ratio of said compressed data block exceeds a compression threshold.

55. (New) The method of claim 1, wherein:

 said content dependent data compression further comprises providing a first compressed data block from the one of a plurality of encoders, associated to said data type, that has the highest compression ratio for said data block so long as said highest compression ratio exceeds a first compression threshold if said data type of said data block is identified; and

 said data compression further comprises providing a second compressed data block from said single compression encoder so long as the compression ratio of said second compressed data block exceeds a second compression threshold if said data type of said data block is not identified.

56. (New) The method of claim 1, wherein:

 said content dependent data compression further comprises providing a first compressed data block from the one of a plurality of encoders, associated to said data type, that has the

highest compression ratio for said data block so long as said highest compression ratio exceeds a first compression threshold if said data type of said data block is identified; and

 said contend independent data compression further comprises providing a second compressed data block from said single compression encoder so long as the compression ratio of said second compressed data block exceeds a second compression threshold if said data type of said data block is not identified and said first and second compression thresholds are different.

57. (New) The method of claim 1, wherein:

 said content dependent data compression further comprises providing a first compressed data block from the one of a plurality of encoders, associated to said identified data type, that has the highest compression ratio for said data block so long as said highest compression ratio exceeds a first compression threshold if said data type of said data block is identified; and

 said contend independent data compression further comprises providing a second compressed data block from said single compression encoder so long as said the compression ratio of said second compressed data block exceeds said first compression threshold if said data type of said data block is not identified.

58. (New) The method of claim 1, wherein said content dependent data compression further comprises providing a compressed data block from the one of a plurality of encoders, associated to said data type, that has the highest compression ratio for said data block so long as said highest compression ratio exceeds a first user-specified compression threshold.

59. (New) The method of claim 1, wherein said content dependent data compression further comprises providing a compressed data block from the one of a plurality of encoders, associated to said data type, that has the highest desirability factor for said data block.

60. (New) The method of claim 1, wherein said content dependent data compression further comprises providing a compressed data block from the one of a plurality of encoders,

associated to said data type, that has the highest user-specified desirability factor for said data block.

61. (New) The method of claim 1, wherein said content dependent data compression is performed so long as the time to perform said content dependent data compression is below a time value.

62. (New) The method of claim 1, wherein said content dependent data compression is performed so long as the time to perform said content dependent data compression is below a time value, wherein said time value is user-specified.

63. (New) The method of claim 1, wherein said data compression is performed so long as the time to perform said data compression is below a time value.

64. (New) The method of claim 1, wherein said data compression is performed so long as the time to perform said data compression is below a time value, wherein said time value is user specified.

65. (New) The method of claim 1, wherein said content dependent data compression further comprises:

initializing a timer;
compressing said data block using at least one encoder associated to said data type; and
outputting said compressed data so long as said timer does not expire with respect to a time value.

66. (New) The method of claim 1, further comprising:

determining a compression threshold;

outputting a compressed data block that exceeds said compression threshold;

67. (New) The method of claim 1, wherein said performing content dependent data compression further comprises:

associating a plurality of encoders to said data type; and

determining which one of said associated encoders is used to compress said data block.

68. (New) The method of claim 1, wherein said performing content dependent data compression further comprises:

associating a plurality of encoders to said data type; and

compressing a data block using at least two of said associated encoders.

69. (New) The method of claim 1, wherein said performing content dependent data compression further comprises:

associating a plurality of encoders to said data type;

compressing said data block using at least two of said associated encoders; and

determining which of said at least two of said associated encoders produced the highest compression.

70. (New) The method of claim 1, wherein said performing content dependent data compression further comprises compressing said data block using at least two encoders.

71. (New) The method of claim 30, wherein said content dependent compression is lossless.

72. (New) The method of claim 30, wherein said content dependent compression is lossy.

73. (New) The method of claim 30, wherein said data compression is lossless.

74. (New) The method of claim 30, wherein said content dependent compression is lossy and said data compression is lossless.

75. (New) The method of claim 30, wherein said content dependent data compression is lossy or lossless dependent on said data type.

76. (New) The method of claim 30, wherein said content dependent data compression is lossy and the amount of desired resolution of said lossy compression is selected.

77. (New) The method of claim 30, wherein said input stream is a compressed input stream.

78. (New) The method of claim 30, wherein said input stream is an uncompressed input stream.

79. (New) The method of claim 30, further comprising processing said data block as having a fixed size.

80. (New) The method of claim 30, further comprising processing said data block as having a variable size.

81. (New) The method of claim 30, further comprising counting the size of said data block.

82. (New) The method of claim 30, further comprising buffering said input data stream.

83. (New) The method of claim 30, further comprising buffering a compressed data block.

84. (New) The method of claim 30, wherein said data compression further comprises appending a data type compression type descriptor to said compressed data block.

85. (New) The method of claim 30, wherein said data compression further comprises comparing the data compression ratio of said compressed data block against a second threshold.

86. (New) The method of claim 30, wherein said data compression further comprises: comparing the data compression ratio of said compressed data block against a second threshold; and

outputting said data block if said data compression ratio does not exceed said second threshold.

87. (New) The method of claim 30, wherein said data compression further comprises: comparing the data compression ratio of said compressed data block against a second threshold; and

outputting said data block, appended with a null data compression type descriptor, if said data compression ratio does not exceed said second threshold.

88. (New) The method of claim 30, wherein said data compression further comprises: comparing the data compression ratio of said compressed data block against a second threshold; and

appending a null data compression type descriptor to said data block.

89. (New) The method of claim 30, wherein said data compression further comprises determining whether or not to append a null data compression type descriptor to said data block.

90. (New) The method of claim 30, wherein said content dependent data compression further comprises:

associating at least one encoder to said data type; and

compressing said data block with at least one of said at least one associated encoders to provide said compressed data block.

91. (New) The method of claim 30, wherein said content dependent data compression further comprises:

associating at two encoders to said data type; and

compressing said data block with at least two of said at least two associated encoders to provide said compressed data block.

92. (New) The method of claim 30, wherein said content dependent data compression further comprises:

associating at least two encoders to said data type; and

providing said compressed data block from the one of said at least two associated encoders that provides the highest compression ratio.

93. (New) The method of claim 30, wherein said content dependent data compression further comprises enabling at least one encoder associated to said data type to compress said data block.